



THE GREAT PLAINS ALLIANCE FOR CLEAN ENERGY

Protecting What's Ours – Benefiting Our Health and Environment

The Following information is available courtesy the American Lung Association's 2007 Report, “Why We Oppose Coal Powered Generation”.

- The American Lung Association believes that the goals of a sound energy policy and protection of respiratory health converge toward goals that maximize energy efficiency and the use of clean energy sources. In other words, we know that there are other, workable and cleaner energy choices besides more coal-fired power plants.
- Arguments for coal power generation that focus only on the “cheap” cost of coal ignore the true costs when the health of citizens is not factored in the equation.

Air pollution has many serious health impacts.

- From the lung health perspective, we are very concerned about two, particulate matter pollution and ozone pollution.
- Coal plants produce significant particulate matter emissions and other emissions like Nitrogen Oxide, Sulfur Dioxide and Volatile Organic Compounds that mix to form ozone.

There are many serious health impacts from particle pollution. Even Short-term increases in particle pollution (over just hours or days) have been linked to:

- Death from respiratory and cardiovascular causes, including strokes^{2,3,4}
- Increased numbers of heart attacks, especially among the elderly and in people with heart conditions;⁵
- Inflammation of lung tissue in young, healthy adults;⁶
- Increased hospitalization for cardiovascular disease, including strokes;^{7,8}
- Increased emergency room visits for patients suffering from acute respiratory ailments;⁹
- Increased hospitalization for asthma among children; and^{10,11,12}
- Increased severity of asthma attacks in children.¹³

Year-round exposure to particle pollution has also been linked to:

- Slowed lung function growth in children and teenagers;^{15,16}
- Significant damage to the small airways of the lungs;¹⁷
- Increased risk of dying from lung cancer; and¹⁸
- Increased risk of death from cardiovascular disease.¹⁹



THE GREAT PLAINS ALLIANCE FOR CLEAN ENERGY

Who is at risk?

Anyone may be affected by particle pollution, but several groups are most at risk:

- Children under 18
- Adults 65 and older
- Anyone with chronic lung diseases, such as asthma, chronic bronchitis, or emphysema
- Anyone with a cardiovascular disease, such as a coronary artery disease or who has suffered a stroke or heart attack
- Anyone with diabetes

How serious is the impact?

- EPA scientists did a study in 9 cities.
- These 9 cities were not meeting the current fine particulate matter standards but even if they were the EPA estimated that over **4,700 premature deaths would occur each year from fine particulate matter in just those nine cities** (Detroit, Los Angeles, Philadelphia, Pittsburgh, St. Louis, Boston, Phoenix, Seattle, and San Jose).
- The EPA has not calculated the total but extrapolating that data would mean the death toll is easily in the tens of thousands annually.²¹

Emissions from coal plants include Nitrogen Oxide, Sulfur Dioxide and Volatile Organic Compounds which mix to form ozone particularly during the summer months. This concern about ozone is intensified with the summer months also being the peak load times of electric generation plants.

Ozone has many negative health impacts. The immediate problems are:

- Chest pain when inhaling deeply
- Wheezing and coughing
- Shortness of breath
- Increased susceptibility to respiratory infections

Exposure to ozone also increases:

- Pulmonary inflammation
- The risk of asthma attacks
- Risk of premature death
- The need for people with lung diseases, such as asthma or chronic obstructive pulmonary disease (COPD), to receive medical treatment and be hospitalized.



THE GREAT PLAINS ALLIANCE FOR CLEAN ENERGY

In the American Lung Association's 2003-2005 *State of the Air Report*, in a section titled, “Ways You Can Protect Your Family”, the ALA had this to say about taking action locally:

Let political leaders in your city, county and state know you want cleaner air. Many communities are developing plans to reach national standards for ozone and particle pollution. Let local and state officials know you support strong measures to clean up the biggest polluters, especially dirty diesel and coal-fired power plants.